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March 15, 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

BY HAND DELIVERY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554

DOCKET FILE COPY ORIGINAL

Re:

In the Matter of Improving the Commission Processes
PP Docket No. 96-17

Dear Mr. Caton:

Transmitted herewith on behalf of my law firm are an original and nine (9) copies of my comments in the above-referenced proceeding as directed to the Commission.

Should any additional information be required, please contact this office.

Very truly yours,


Henry E. Crawford

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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.

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OFFICE OF SECRETARY

In the Matter of

**IMPROVING COMMISSION
PROCESSES**

PP Docket No. 96-17

To: The Commission

COMMENTS OF THE LAW OFFICES OF HENRY E. CRAWFORD

Henry E. Crawford

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March 15, 1996

TABLE OF CONTENTS

TABLE OF CONTENTS	i
I. INTRODUCTION.....	1
II. SUGGESTIONS FOR IMPROVING THE COMMISSION'S USE OF COMPUTER TECHNOLOGY.....	2
A. The FCC Should Create a Computer Advisory Board Consisting of Members of the Commission, Regulated Industries and the Communications Bar.	2
B. The Commission Should Develop a Uniform System for Citing Electronic Documents.....	4
C. The Commission Should Adopt a Vendor-Neutral Format For Electronic Documents.....	4
III. CONCLUSION	5

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PP Docket No. 96-17

To: The Commission

COMMENTS OF THE LAW OFFICES OF HENRY E. CRAWFORD

The Law Offices of Henry E. Crawford¹ respectfully submits its comments in response to the *Notice of Inquiry* ("NOI") released by the Commission on February 14, 1996. In support thereof, the following is stated:

I. INTRODUCTION

1. In the NOI, the Commission sought comment on ways in which it could use computer technology to deliver services to the general public in a less costly and more efficient manner, without a decline in quality or integrity.² Having worked for several years on issues relating to the information needs of FCC users, I will take this opportunity to make the suggestions set forth below.

¹ Henry E. Crawford is a practicing communications lawyer with substantial experience in the design and development of commercial legal software. Mr. Crawford has published extensively on issues involving legal software and writes the monthly column "Computers for Communications Lawyers" for the Federal Communications Bar Association.

² Specifically, the Commission asked: "In what ways can computer technology, electronic filing, and the Internet be used to improve processing? (For example, should the Commission allow parties to file comments via the Internet, on diskette, or require parties to include electronic mail or Internet addresses with their filings?)" NOI, ¶9.

II. SUGGESTIONS FOR IMPROVING THE COMMISSION'S USE OF COMPUTER TECHNOLOGY

A. The FCC Should Create a Computer Advisory Board Consisting of Members of the Commission, Regulated Industries and the Communications Bar.

2. As the software industry has matured in the U.S., its most salient feature is the development of software technology as a collaborative act involving communities of developers, third-party companies and end users. These collaborations have brought a level of efficiency and interoperability that would not otherwise be present if the technology were created behind the closed doors of stand-alone companies. With respect to end users, no one would release a major software product without extensive usability studies and beta testing.

3. Although the FCC is a governmental agency, it should not develop technology in isolation from the community of end users and third party information suppliers. With this in mind, I offer some examples from the recent past.

4. In August of 1994, the FCC released a FeeFiler program to allow electronic filing of regulatory fees on FCC Form 159. The user interface was awkward and correcting errors was difficult. In order to do more than one filing, the user had to create multiple directories on the computer's hard disk and the program was riddled with similar bugs and idiosyncrasies. A simple beta testing program prior to release of the software would have revealed these problems.

5. For the past several months, the Mass Media Bureau has made its Broadcast Actions and Broadcast Applications available on the Internet. This has been a valuable service to the interested members of the public. However,

each release is named in a way that overwrites the previous month's release. Consequently, there is no electronic archive to turn to in the event a dispute erupts over whether a petition to deny needed to have been filed by a certain date. Furthermore, the file naming convention makes it difficult for users to build their own archives since every file needs to be renamed in order to avoid overwriting. These are issues that could only have been identified and addressed by consulting with outside users.

6. These are just two examples of how a Computer Advisory Board could have been helpful to the Commission in giving input to the process of developing software technology. No software company would release a major software component without thorough beta testing. Neither should the Commission. How else can the Commission understand the hardware and document format needs of its users. Additionally, a Computer Advisory Board will bring to the table a knowledge of systems and platforms that the Commission itself may not be aware of.

7. In view of the above, it is respectfully requested that the Commission initiate the development of a Computer Advisory Board whose mission would be to assist the Commission in the testing and development of computer technologies.³ Indeed, all of the topics that follow are topics that can and should be analyzed by a Computer Advisory Board.

³ The Mass Media Bureau has requested comment "as to whether the broadcast industry and/or its representatives would like to participate in the development of these electronic systems." NOI, ¶158. I fully support the Mass Media Bureau's invitation and would welcome participation in this area.

B. The Commission Should Develop a Uniform System for Citing Electronic Documents

8. At present, despite the great availability of FCC information in electronic form, citation to cases and items is still done by referencing page numbers in the printed FCC Record. Printed pages numbers, however, tend to be less meaningful when users encounter these documents in WordPerfect, ASCII Text, or even HTML (the Hypertext Markup Language of the World Wide Web). As the significance of hard-copy page numbers wanes, modern citation systems need to be created to encompass the various information display formats.

9. Fortunately, nearly all FCC Record materials are presented in serially numbered paragraphs. Such a paragraphing scheme could serve as the backbone of a page-neutral citation system. However, the specifics should be developed by a joint committee such as the one suggested above.

C. The Commission Should Adopt a Vendor-Neutral Format For Electronic Documents

10. Legal documents require special formatting in order to portray footnotes and underlining. A purely text based document cannot capture these important elements. As a result, the Commission presently makes its documents available on the Internet in both WordPerfect and ASCII text formats.

11. Many factors suggest a different approach. The duplicative efforts required to maintain documents in WordPerfect, ASCII and HTML is wasteful. Support for a single vendor's document format such as WordPerfect does not foster open, interoperable systems. While most Windows based word-processors support older WordPerfect file formats, it is not known with any

degree of certainty how long support for any given vendor specific document format will continue to exist among word-processor vendors.

12. I suggest the adoption of Rich Text Format ("RTF") for Commission documents. RTF is a vendor neutral document specification supported by nearly all word-processors. RTF has the following advantages:

- ◇ most, if not all, modern word processors read and write RTF (WordPerfect, Word, Ami Pro, etc.);
- ◇ RTF supports footnotes, character formatting (italics, underlining etc.) and many other graphics capabilities;
- ◇ RTF can be used with many different operating systems such as MS-DOS, Windows, OS/2, and Apple Macintosh;
- ◇ conversion software, where needed, is relatively inexpensive and ubiquitous;
- ◇ RTF is the basis for many word processing add-on tools in programming languages from Visual Basic to C++.

13. RTF has many advantages over the current system of duplicating files across a number of file formats. These files could be downloaded by any user and instantly displayed using virtually any word-processor on the market. It makes sense for the Commission to make its documents available in RTF.

III. CONCLUSION

14. The above suggestions demonstrate the need for an ongoing Computer Advisory Board. The act of making documents available on the Internet or developing fee filing software requires decisions that limit the types of software and hardware that will be compatible. Consequently, in order to best serve its users, the Commission should not take these steps in isolation, but instead, act in conjunction with the users of the information and software.

WHEREFORE, Law Offices of Henry E. Crawford respectfully requests
that the above comments be adopted by the Commission.

March 15, 1996

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Respectfully Submitted,

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By: 
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